

## ABSTRACT

A composition for a glass-ceramic material that contains a crystallinity of at least about 30% by weight of forsterite components at a liquidus temperature of about 1525°C or below. The glass-ceramic has a composition, in weight percent on an oxide basis, consisting essentially of about: 40-60% SiO<sub>2</sub>; 10-25% Al<sub>2</sub>O<sub>3</sub>; 18-30% MgO; 3-10% Na<sub>2</sub>O; 0-10% K<sub>2</sub>O; >5-15% TiO<sub>2</sub>. The invention further comprises a method for achieving high crystalline yield at such a low liquidus with increased solubility of high levels of chromium ions. The glass-ceramics can be used in drawing optical fibers and as gain media in amplifier and laser devices for near infrared wavelengths.